FIG. 1

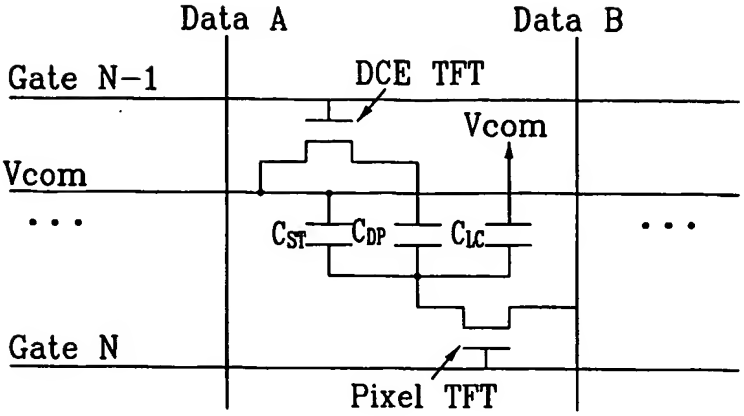

Data A
Data B
Gate N-1
DCE TFT
Vcom
Vcom
C_{ST}
C_{DP}
C_{LC}
Gate N
Pixel TFT

FIG. 2A

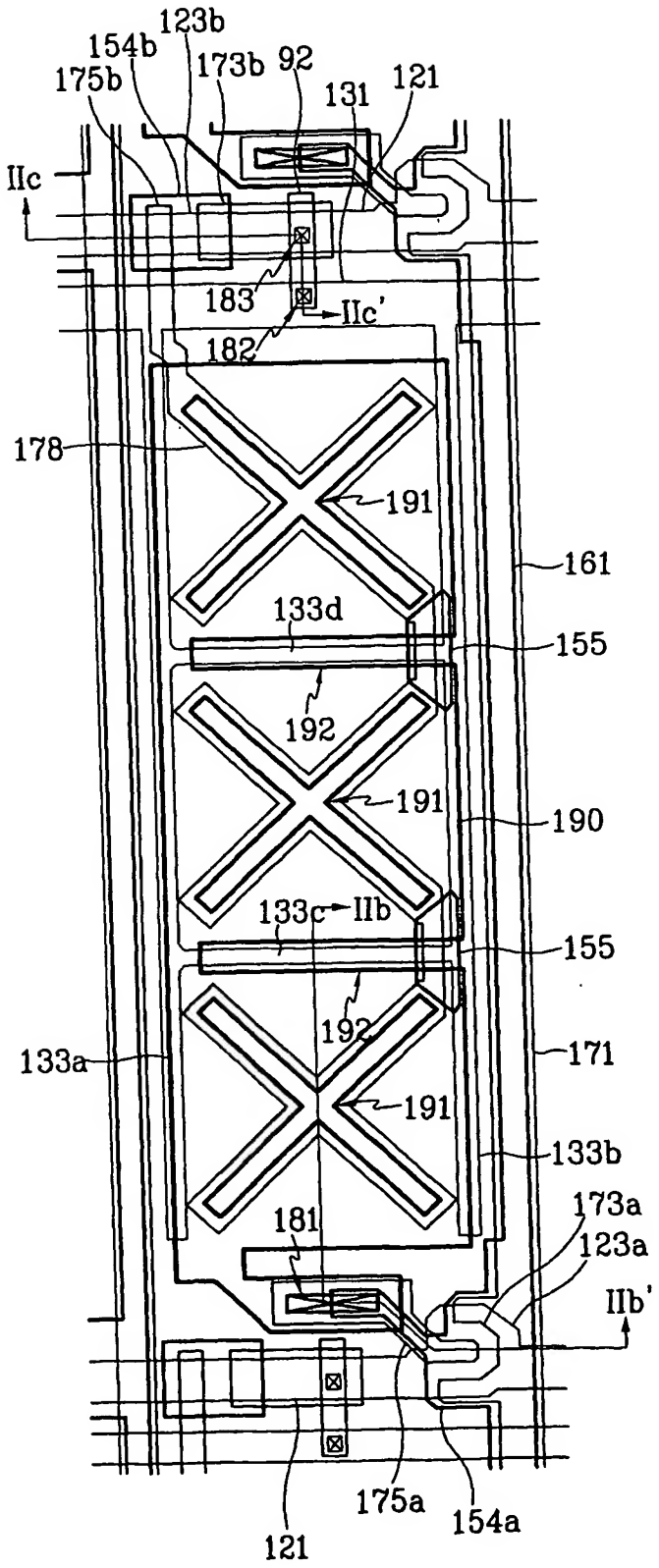

123b
154b
175b
173b
92
131
121
IIc
183
IIc'
182
178
191
161
133d
155
192
191
190
133c
IIb
155
192
133a
171
191
133b
181
173a
123a
IIb'
175a
154a
121

FIG. 2B

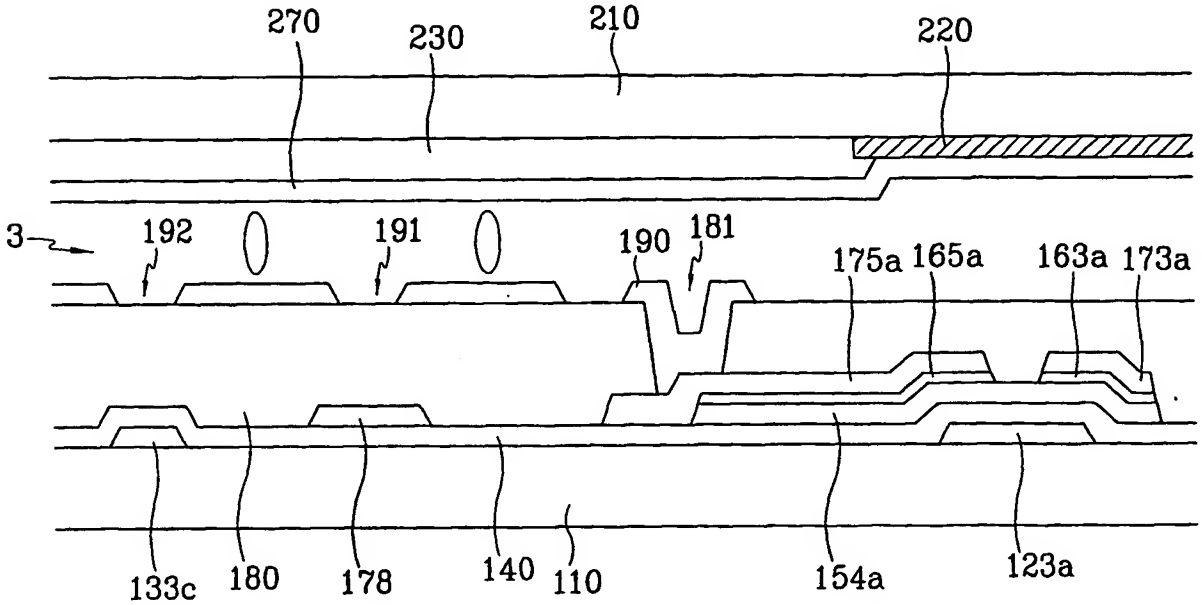

270
230
210
220
3
192
191
190
181
175a
165a
163a
173a
133c
180
178
140
110
154a
123a

FIG. 2C

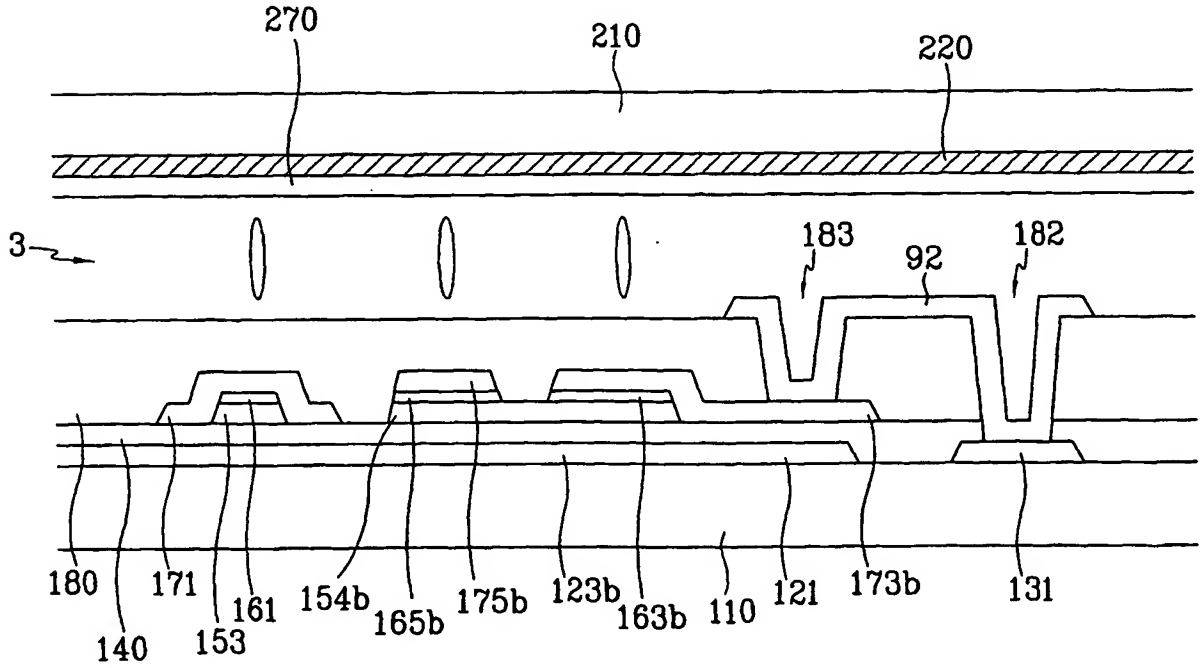

270
210
220
3
183
92
182
180
140
171
153
161
154b
165b
175b
123b
163b
110
121
173b
131

FIG. 3A

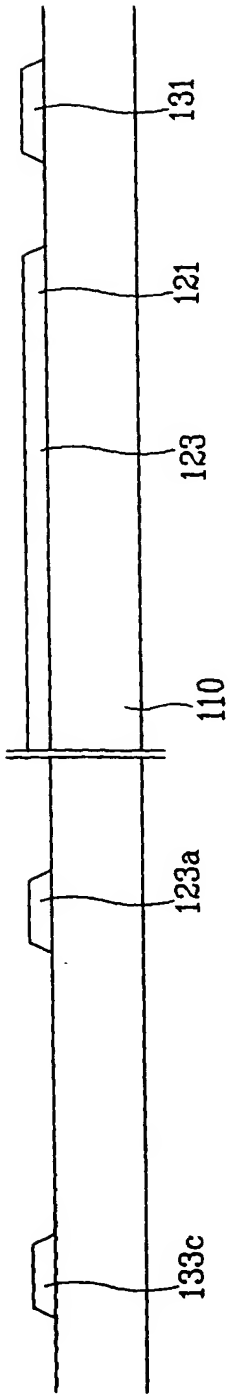


FIG. 3B

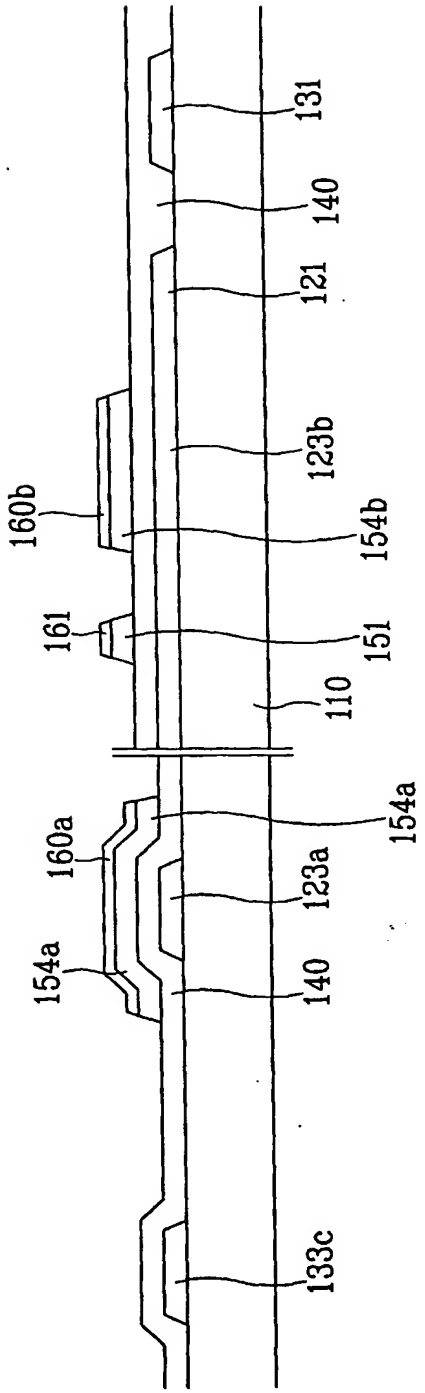

131
140
121
123b
160b
154b
161
151
110
154a
160a
123a
154a
140
133c

FIG.3C

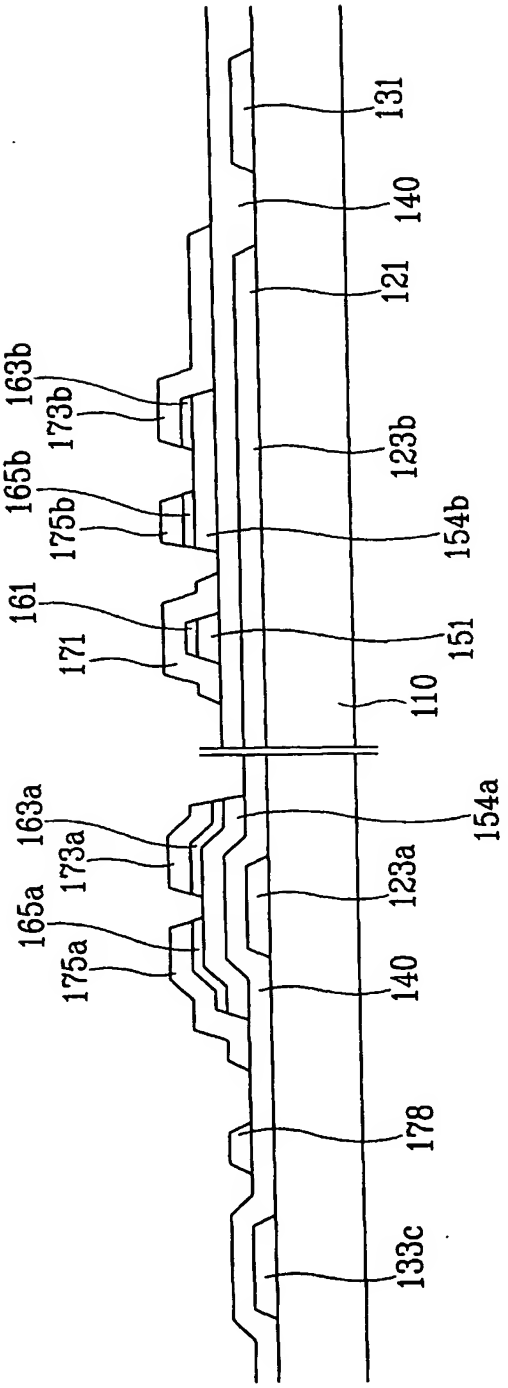

131
140
121
163b
173b
123b
165b
175b
154b
161
171
151
110
163a
173a
154a
165a
175a
123a
140
178
133c

FIG.3D

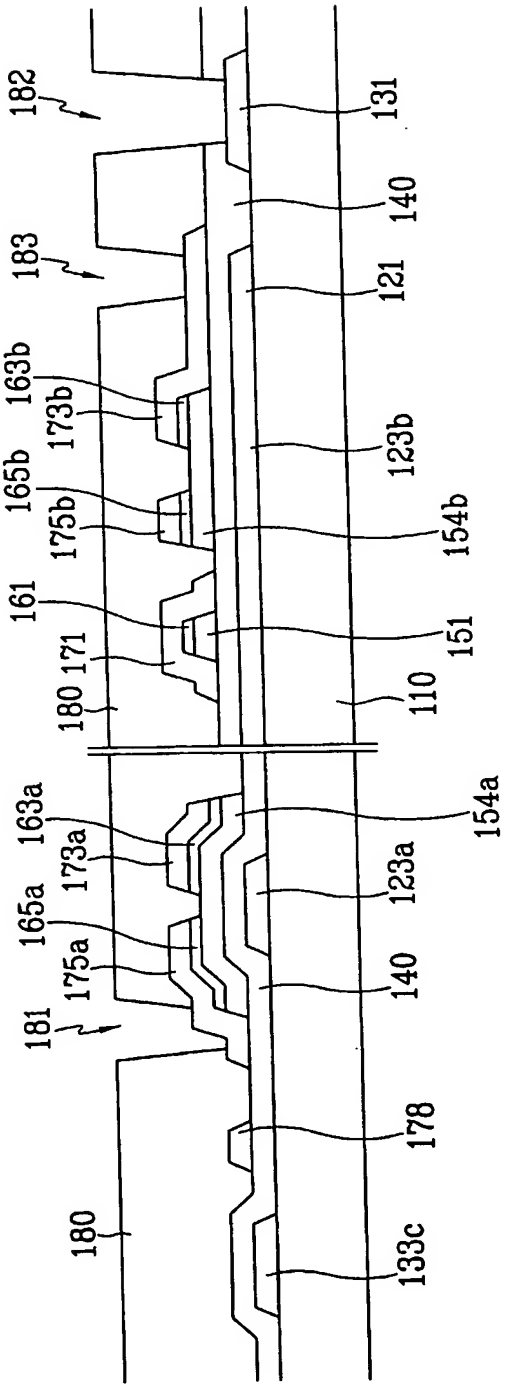

182
131
140
183
121
163b
173b
165b
123b
175b
154b
161
151
171
180
110
163a
154a
173a
165a
123a
175a
140
181
178
180
133c

FIG. 4

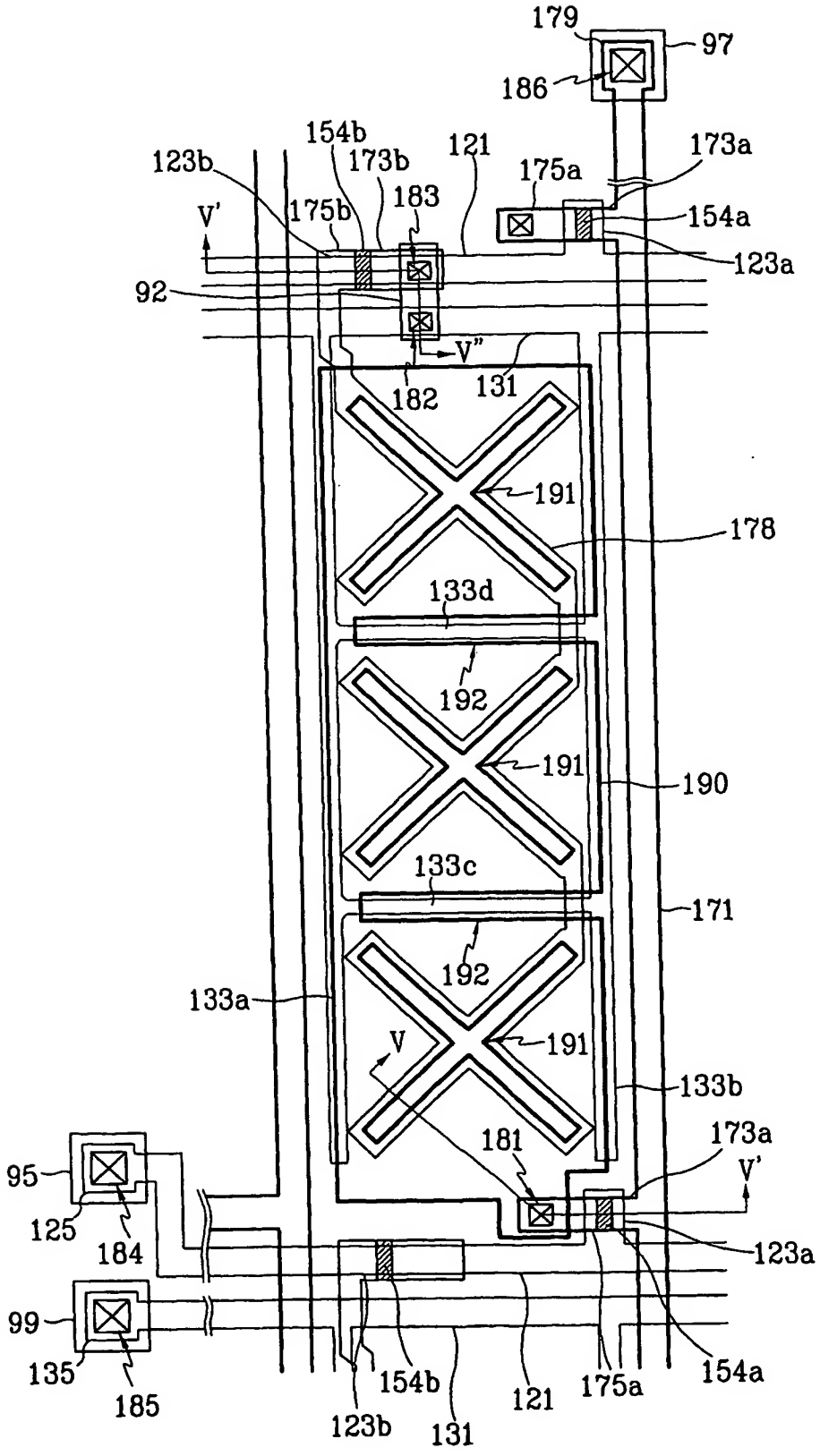

179
97
186
154b
173b
121
173a
123b
175a
183
175b
154a
V'
123a
92
V"
131
182
191
178
133d
192
191
190
133c
171
192
133a
191
V
133b
181
173a
95
V'
125
184
123a
99
135
154b
121
175a
154a
185
123b
131

FIG.5

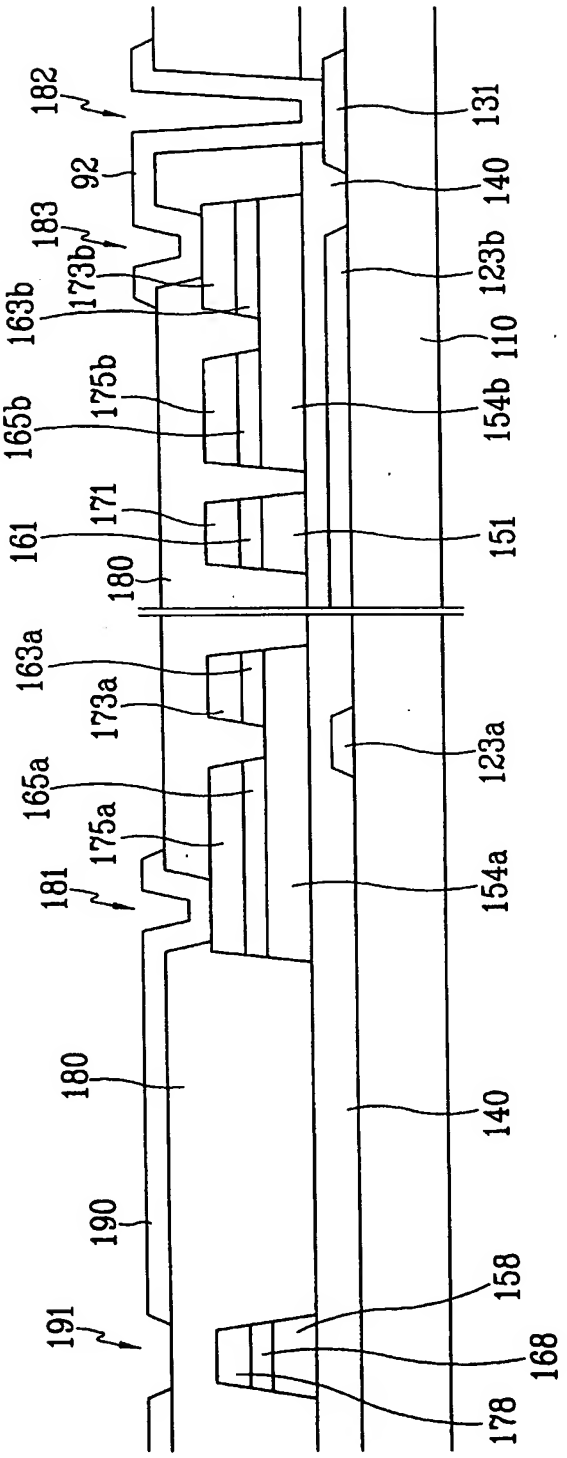
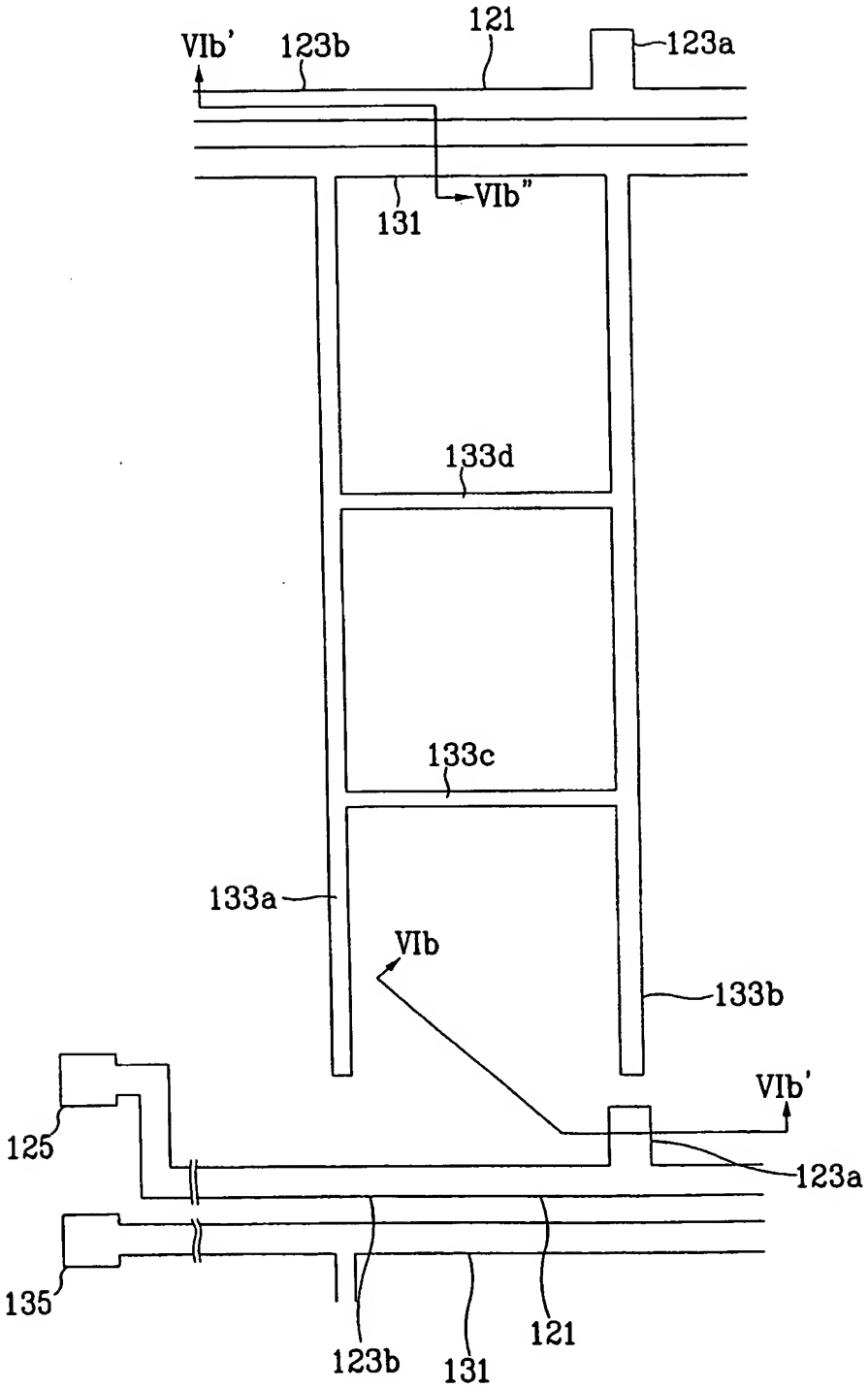

182
92
183
173b
163b
165b
175b
161
171
180
163a
173a
165a
175a
181
180
190
191
131
140
123b
110
154b
151
123a
154a
140
158
168
178

FIG. 6A


VIb'
123b
121
123a
VIb"
131
133d
133c
133a
VIb
133b
VIb'
125
123a
135
123b
131
121

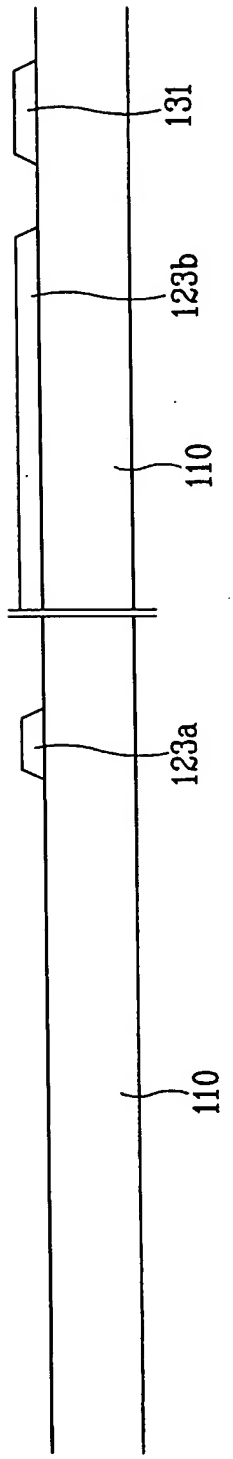


FIG. 6B

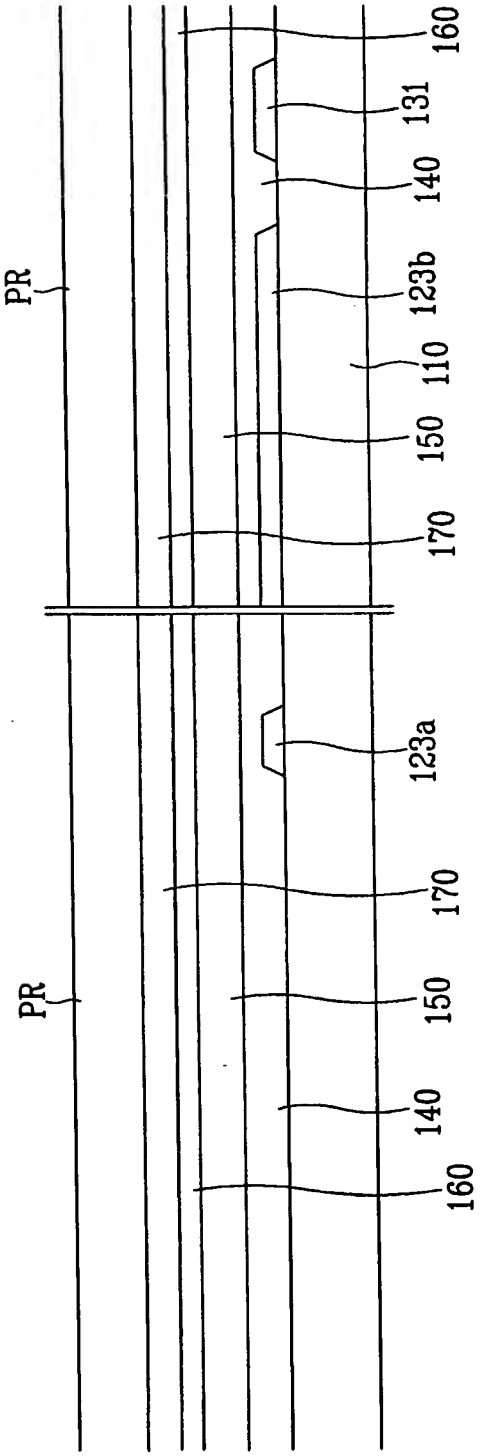


FIG. 7

FIG. 8A

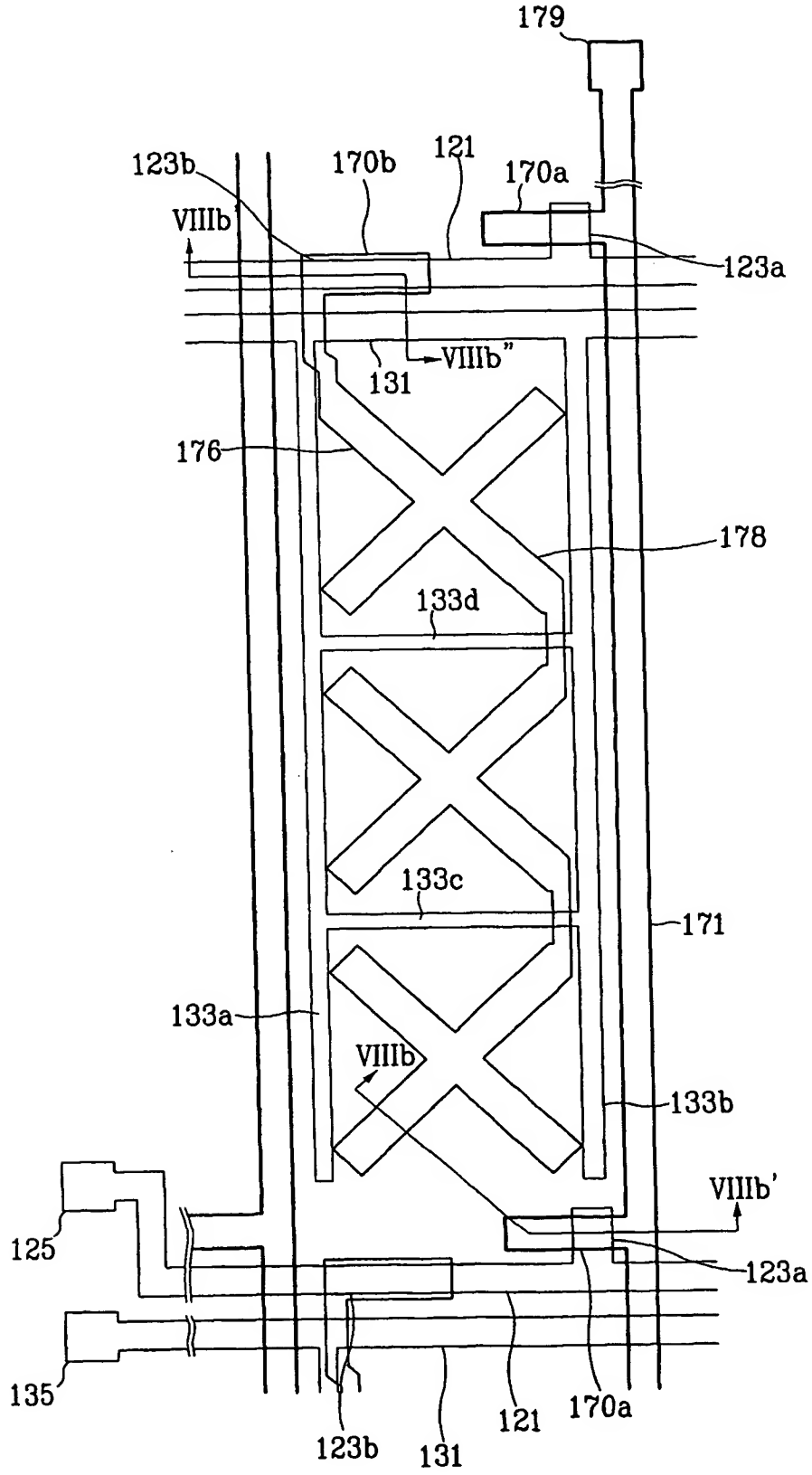

179
123b
170b
121
170a
VIIIb
123a
131
VIIIb"
176
178
133d
133c
171
133a
VIIIb
133b
VIIIb'
125
123a
135
123b
131
121
170a

FIG.8B

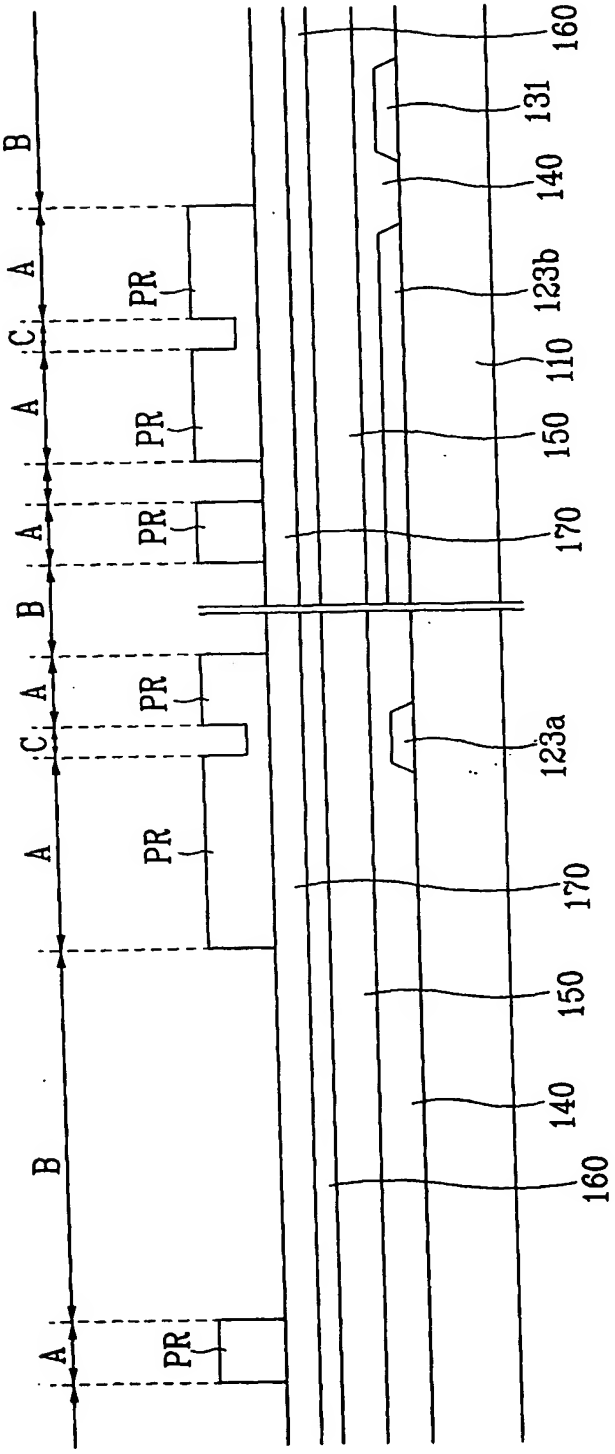

B
A
PR
C
A
PR
A
PR
B
A
PR
C
A
PR
B
A
PR
160
131
140
123b
110
150
170
123a
170
150
140
160

FIG. 9

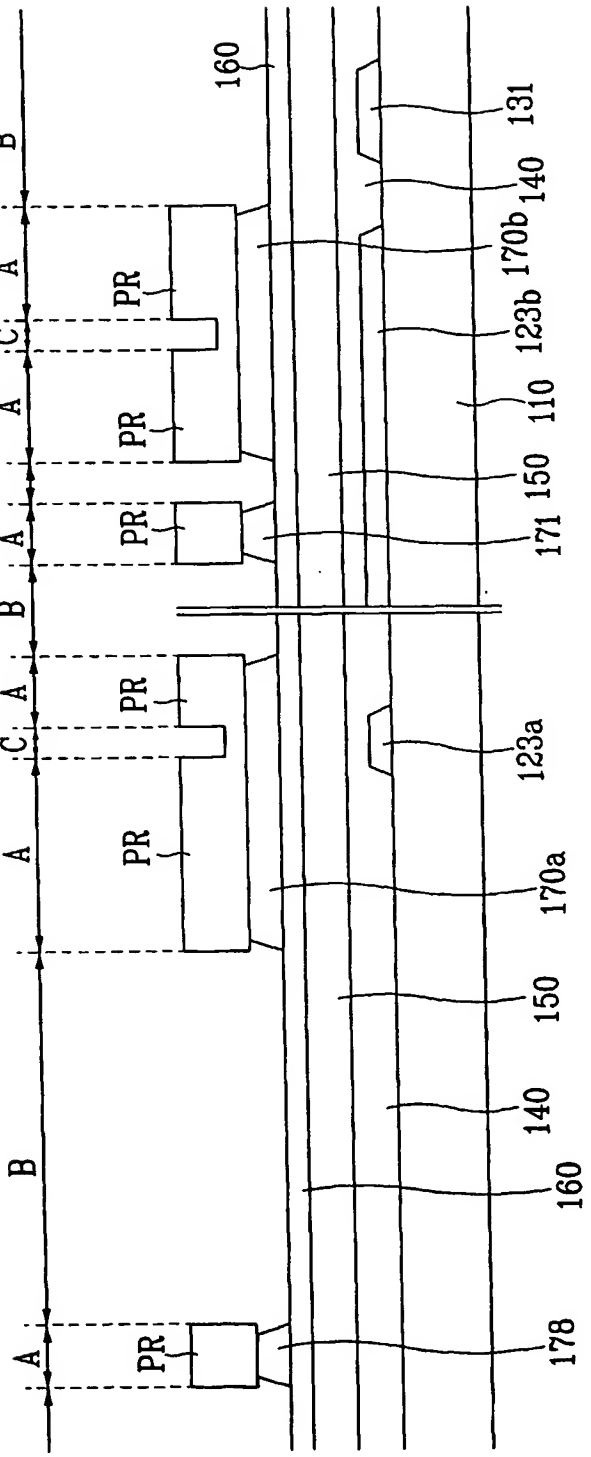

160
131
140
170b
123b
110
150
171
123a
170a
150
140
160
178
B
A
C
A
A
B
A
C
A
B
A
PR
PR
PR
PR
PR
PR

FIG. 10

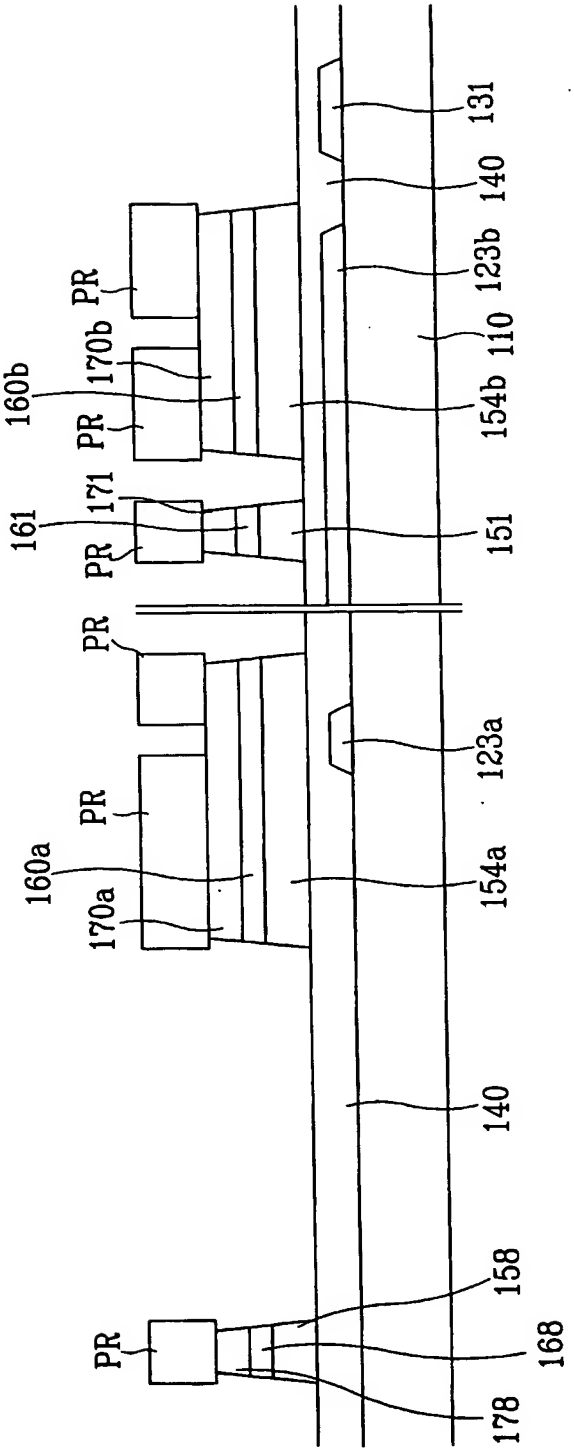

131
140
123b
110
154b
151
123a
154a
140
158
168
178
PR
160b
170b
171
161
160a
170a

FIG. 11A

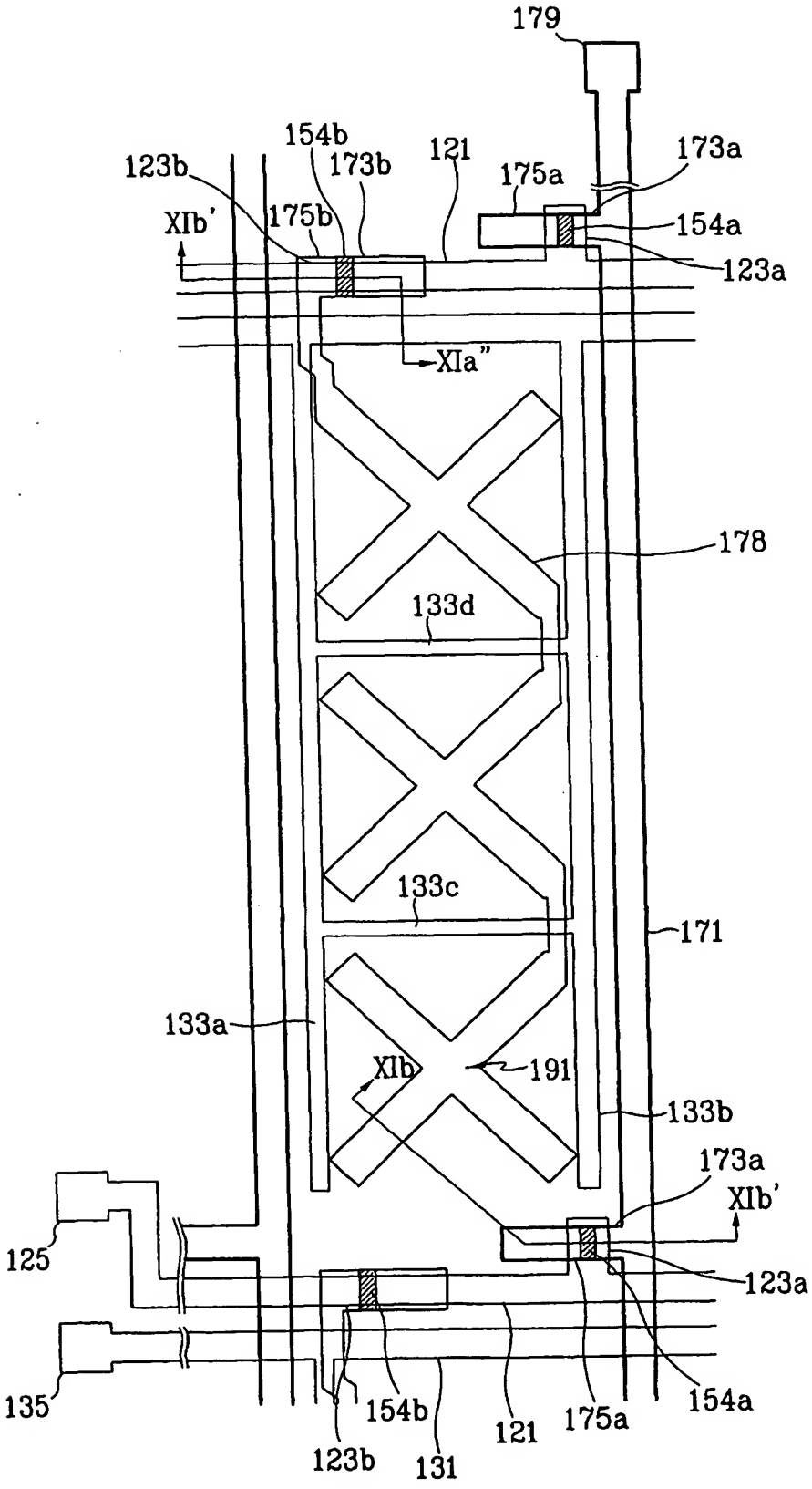

179
154b
123b
173b
121
175a
173a
XIb'
175b
154a
123a
XIa"
178
133d
133c
171
133a
XIb
191
133b
173a
XIb'
125
123a
135
154b
121
175a
154a
123b
131

FIG. 11B

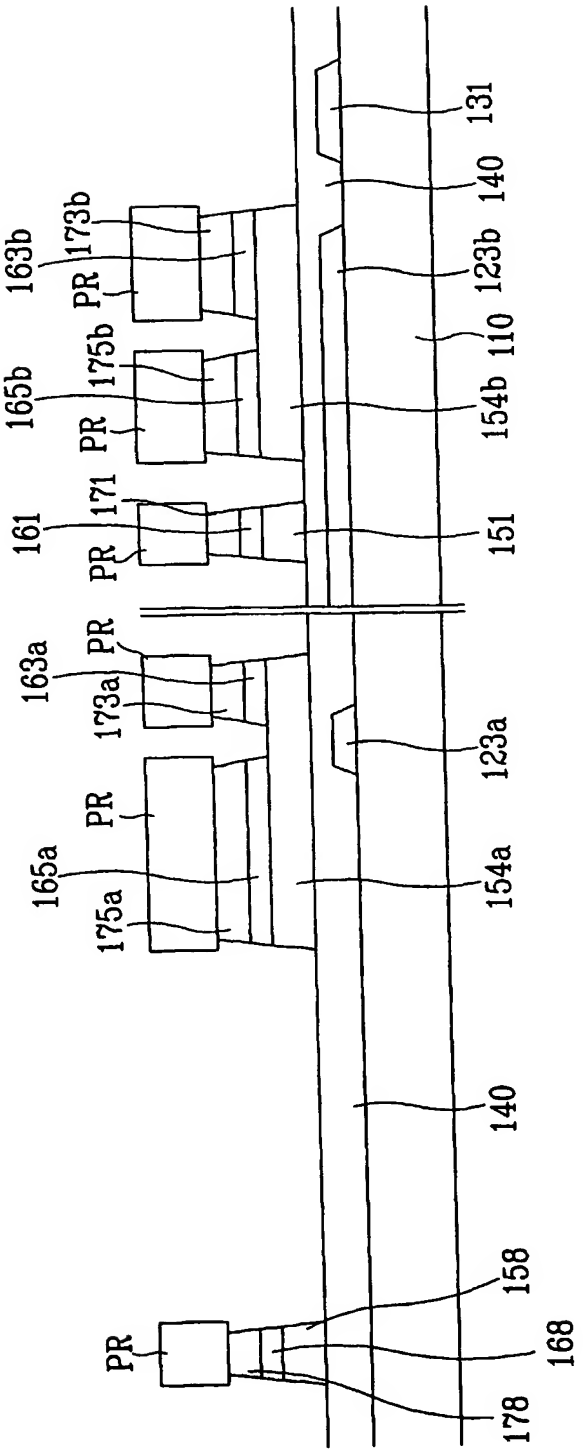

131
140
123b
110
154b
151
123a
154a
140
158
168
178
163b
173b
PR
165b
175b
161
171
163a
173a
165a
175a

FIG. 12

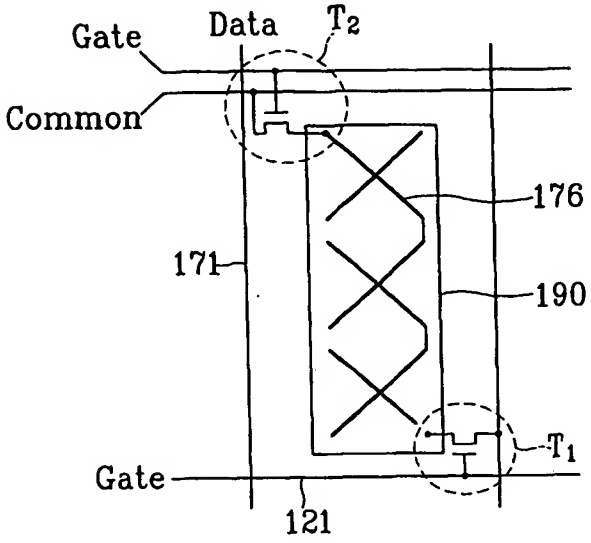

Gate
Data
T_2
Common
176
171
190
T_1
Gate
121

FIG. 13

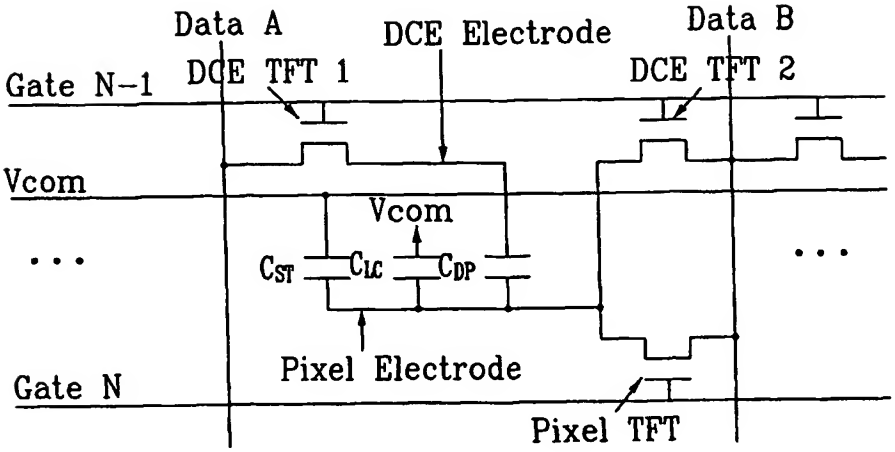

Data A
DCE Electrode
Data B
Gate N-1
DCE TFT 1
DCE TFT 2
Vcom
Vcom
C_{ST}
C_{LC}
C_{DP}
Pixel Electrode
Gate N
Pixel TFT

FIG. 14

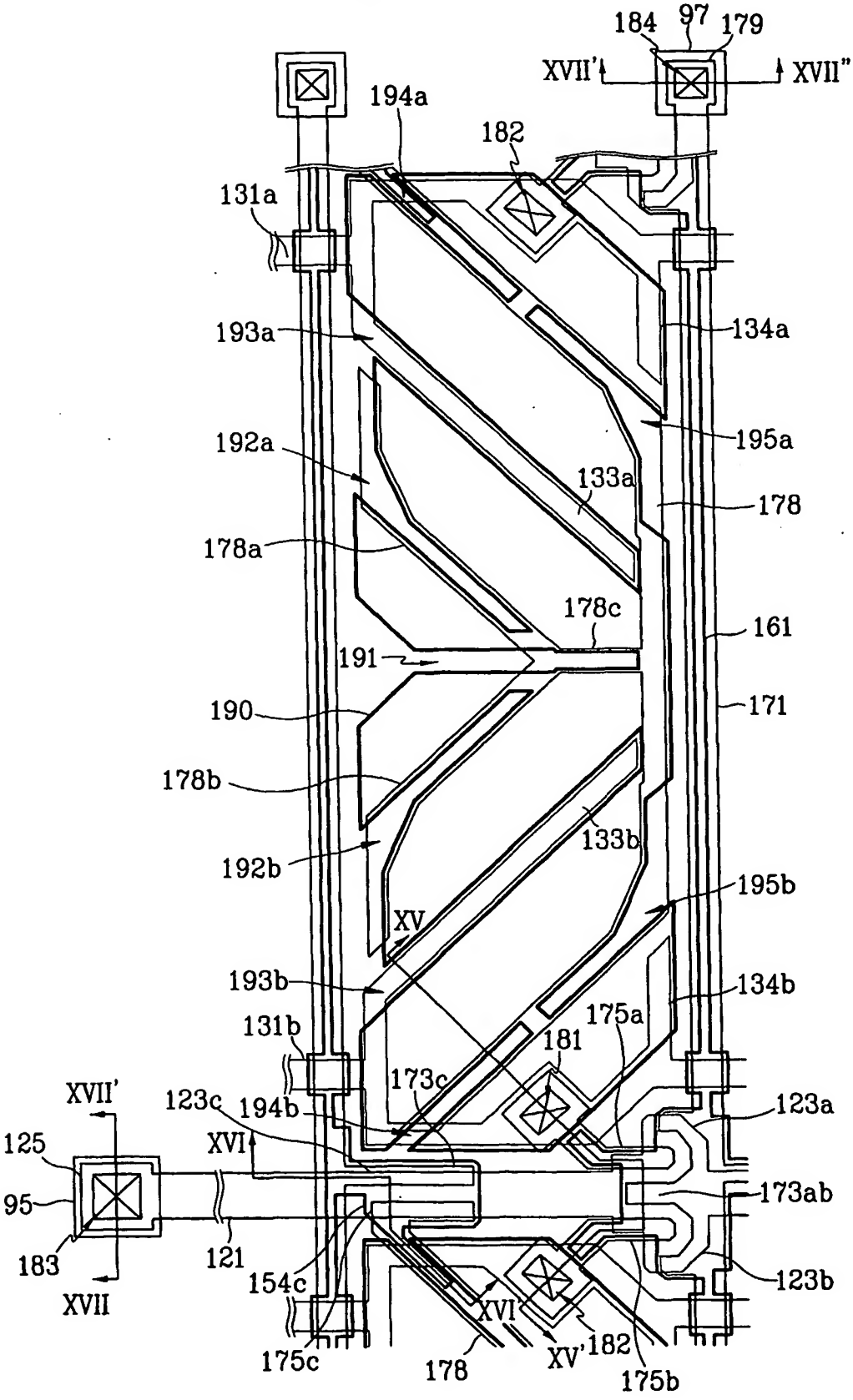

184
97
179
XVII'
XVII"
194a
182
131a
193a
134a
192a
195a
133a
178
178a
178c
161
191
190
171
178b
133b
192b
195b
XV
193b
134b
175a
131b
181
173c
123c
194b
123a
XVI
125
173ab
95
121
183
154c
123b
XVII
175c
178
XV'
182
175b

FIG. 15

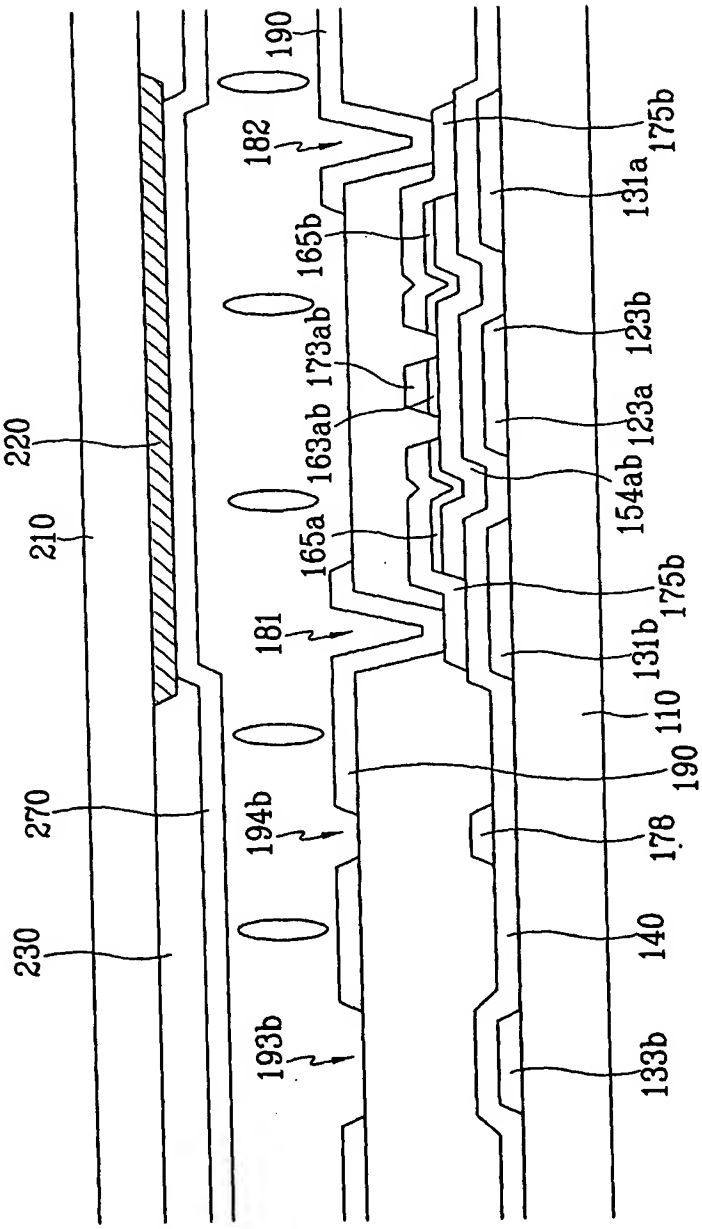
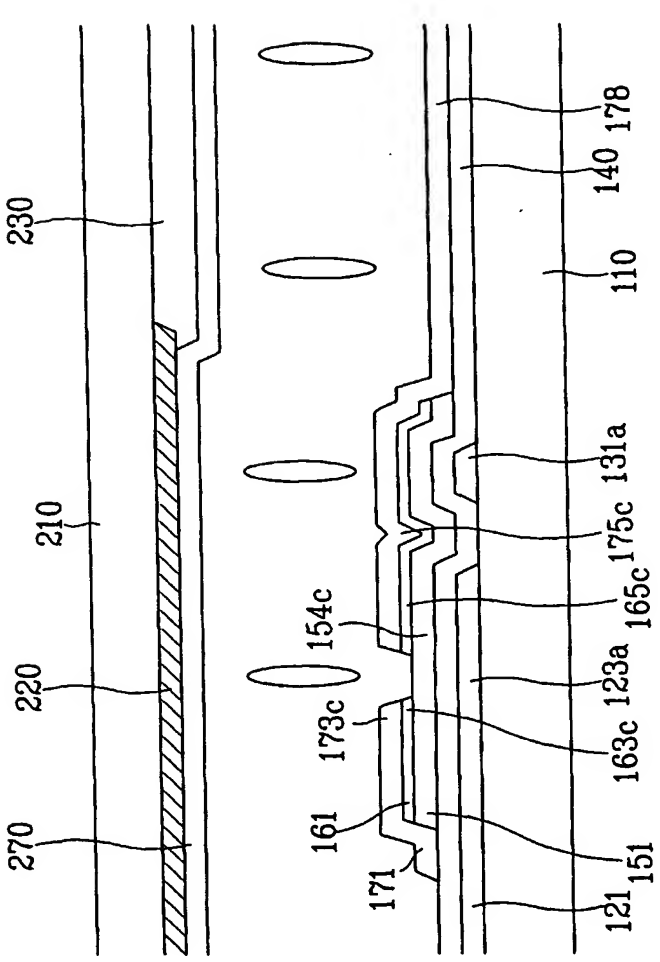

190
182
175b
131a
165b
123b
173ab
123a
163ab
154ab
220
165a
175b
210
181
131b
110
190
270
194b
178
230
140
193b
133b

FIG. 16


230
210
220
270
154c
173c
161
171
178
140
110
131a
175c
165c
123a
163c
151
121

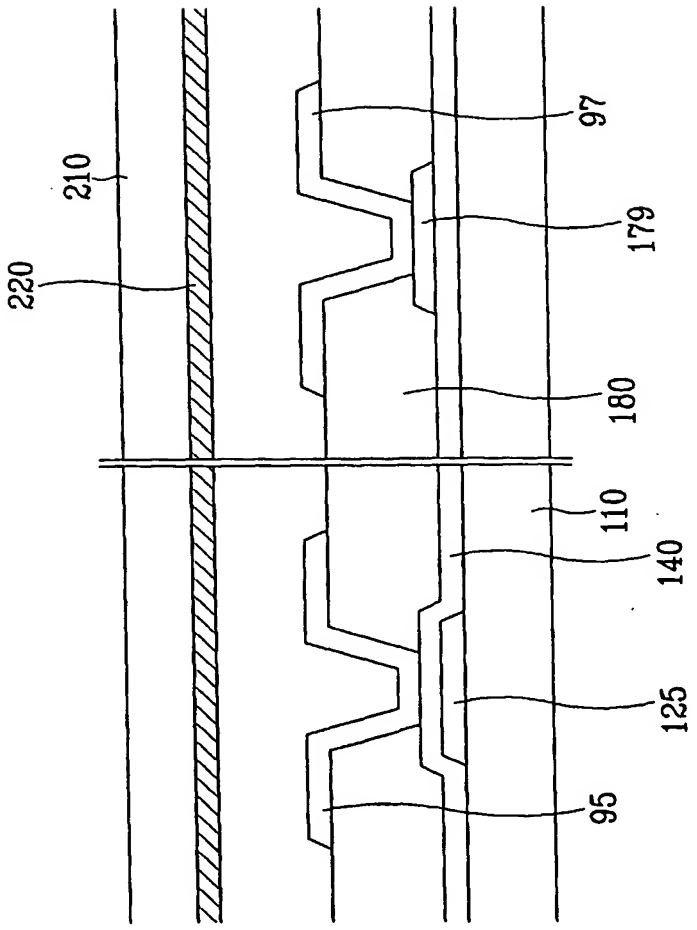



FIG. 17